

SZOSTAK, Wiktor B.; ROMANIUK-MICHALSKA, Elzbieta

Effect of steroid on the level of non-esterified fatty acids
in the plasma in nutritional lipemia. Pol. tyd. lek. 20 no.28:
1048-1050 12 J1 '65.

1. Z II Kliniki Chorob Wewnętrznych Studium Doskonalenia Lekarzy
AM w Warszawie (Kierownik: prof. dr. med. E. Ruzyllo).

SZOSTAK, WALTER, B.; ROMANIUK-MICHALSKA, Elzbieta

Case of bronchial cancer with metastases to the heart. Pol. tyg.
Lok. 20 no.34:1293-1295 23 Ag '65.

1. Z II Kliniki Chorob Wewnętrznych Studium Doskonalenia Lekarzy
w AM w Warszawie (Kierownik: prof. dr. med. E. Ruzyllo).

L 62153-65

ACCESSION NR: AP5011486

FO/0026/65/013/001/0057/0064

AUTHOR: Jankowski, J.; Kielek, W.; Romaniuk, Wl.

27

TITLE: Type TMP-1 transistor proton magnetometer

25

B

SOURCE: Acta geophysica polonica, v. 13, no. 1, 1965, 57-64

TOPIC TAGS: magnetometer, transistor, transistor proton magnetometer, signal, precession, pulse, pulse compression, pulse counter, pulse generator, frequency, gate, limiting circuit, forming circuit, circuit, control design, signal generator, TMP-1 magnetometer

ABSTRACT: This article describes the design and control measurements of a TMP-1 magnetometer. Particular attention is paid to the induction circuit of the precession signal, inasmuch as it has not yet been adequately developed and causes great difficulties. The electronic circuit that measures the precision frequency is a typical circuit but with a larger number of elements. Particular attention is also paid to the accuracy of the measurements, and sources of error are discussed. The assembly of the magnetometer is shown in Fig. 1 of the Enclosure. After its amplification the precession signal remains in forming circuit UF as a standard

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L 62153-65

ACCESSION NR: AP5011486

and a limited pulse. In this form it gets to binary frequency reducer OB1, which is set by a cancel circuit so that the first pulse at its outlet appears after 145 input pulses are received. Thus, two electric pulses separated by 1024 or 2048 periods of input voltage are generated. The first of these pulses is retarded by about 70 msec with respect to the front of the precession signal. These pulses control the control circuit that opens gate B. When the gate is open a series of pulses of 100 kilocycles travel from a standard quartz generator to the inlet of a five-decade electronic counter equipped with an indicator. The number of standard time units ($10 \mu\text{sec}$) that elapse between the first and second pulse at the outlet of the binary frequency reducer OB1 appears on the indicator. The performance of the magnetometer is controlled by the inclusion of control voltage of a frequency of 1.5625 kilocycles from an additional binary reducer OB2 at the inlet of the limiting circuit and the forming circuit to reduce the standard frequency of 100 kilocycles. For the correct operation of the entire circuit the measurement of 2048 periods of control voltage must amount to 131072 ± 1 tenths of a μsec . Measurements made at observatories, under field conditions and in water show that the magnetometer is efficient, that the systematic error is of the order of 1γ , that the accidental error is of the order of 0.5γ , and that the measurement time is 6 sec. "The authors thank Engineer Andrzej Rudzki for valuable discussions and cooperation." Orig. art. has: 15 formulas and 6 figures.

Cord 2/4

L 62153-65

ACCESSION NR: AP5011486

ASSOCIATION: Zaklad Geofiziki PAN (Department of Geophysics, PAN)

SUBMITTED: 28Oct64

ENCL: 01

SUB CODE: ES, EC

NO REF SOV: 003

OTHER: 007

Card 3/4

L 62153-65

ACCESSION NR: AP5011486

ENCLOSURE: 01

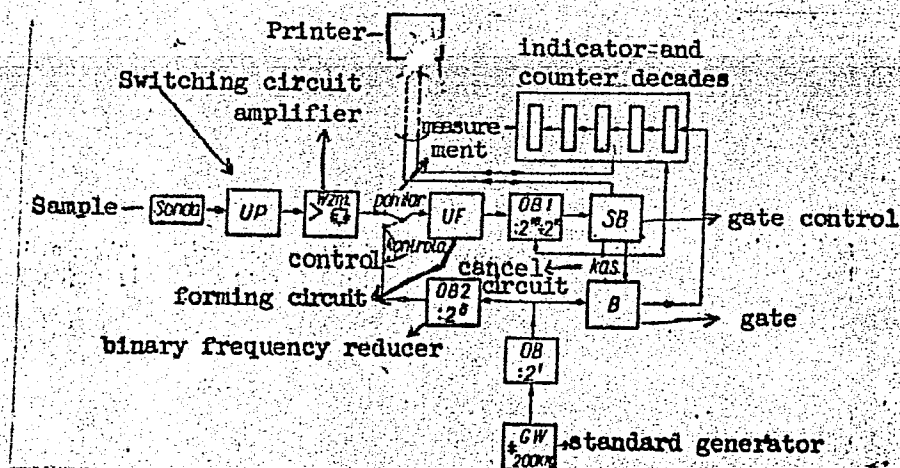


Fig. 1. Block diagram of the TMP-1 magnetometer

Card 4/4 *allp*

ROMANIUK, V.

I jumped from JIG-15. p. 10. ARIPILE PATRIEI. (Asociatia Voluntara pentru
Sprijinirea Apararii Patriei) Bucuresti.
Vol. 2, no. 8, Aug. 1956.
Fueling airplanes during flight. p. 12.

SOURCE: East European Accessions List, (EEAL), Library of Congress,
Vol. 5, No. 11, November, 1956.

ROMANIV, M.

Consolidation of bookkeeping in districts. Fin.SSSR 18 no.2:
66 F '57. (MLRA 10:5)

1.Zaveduyushchiy Rogatinskim rayfinotdelom Stanislavskoy oblasti.
(Rogatin District--Bookkeeping)

L 04940-67 EMT(d)/EMT(m)/EMT(w) IJP(c) EM
 ACC NR: AP6029689 SOURCE CODE: UR/0369/66/002/004/

AUTHOR: Romaniv, O. N.; Kukiyak, N. L.; Vyval', I. P.

ORG: Physics-Engineering Institute, AN UkrSSR, L'vov (Fiziko-mekhanicheskiy institut UkrSSR)

TITLE: The effect of high temperature thermomechanical treatment on the cyclic strength of high-carbon steels

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 4, 1966, 474-478

TOPIC TAGS: high carbon steel, cyclic stress, high temperature effect, cyclic strength, thermomechanical property

ABSTRACT: The mechanical properties under cyclic stress of the steels 9KhS (0.92% carbon) and ShKh15 (0.98% carbon) were determined after heat treatment at 850 C under applied torque. The treatment resulted in anisotropic properties, as shown in asymmetric stress cycles by an increase in strength and plasticity under direct static load, i.e., in the direction of torque applied during treating. The strength increase was up to twice the value measured on the control specimen, whereas the strength in the inverse direction of stress decreased.

Card 1/2

Card 2/2

ROMANIV, O.N.; GNIPOVICH, V.I.

Structural strength of the PS tubular rectangular sections. Vop.
mekh. real. tver. tela no.3:192-197 '64.

(MIRA 17:11)

ROMANIV, O.N.

Some mechanical properties of steels treated for high strength.
Fiz.-khim. mekh. mat. 1 no.1:40-48 '65. (MIRA 19:1)

1. Fiziko-mekhanicheskiy institut AN UkrSSR, L'vov. Submitted
October 5, 1964.

L 1335-66 EWP(z)/EWT(m)/EWP(b)/I/EWA(d)/EWP(w)/EWP(t) MJW/JD
 ACCESSION NR: AP5022403

UR/0369/65/000/004/0465/0467

AUTHOR: Vyval', I. P.; Romaniv, O. N.; Sakhno, Yu. A.

TITLE: Effect of heat and vibration treatment on shear strength and endurance of bits made of R18 steel

SOURCE: Fiziko-khimicheskaya mekhanika materialov, no. 4, 1965, 465-467

TOPIC TAGS: mechanical heat treatment, shear strength, endurance test, steel/ R18 steel

ABSTRACT: R18 steel containing 0.9% C, 18.2% W, 4.1% Cr, 1.1% V, and 0.2% Mo was used in the study. The bits diameter was 9 mm and the drill rod's diameter was 15 mm. The treatment procedure involved heating to 1260°C, cooling in air to 450-600°C, cyclic torsional deformation, and quenching in oil. The treatment equipment was described in the literature (I. V. Vyval' and O. N. Romaniv, *Vliyanie rabochikh sred na svoystva materialov*, 1964, vyp. 3 [Effect of Operating Media on Properties of Materials, 1964, No. 3]). The shear strength was examined on a vertical drill at a constant feed rate of 0.11 mm/revolution using type-45 steel. The cutting rate varied from 8.2 to 16.1 m/min. Maxima of bit endurance occurred at

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L 1335-66

ACCESSION NR: AP5022403

n = 500 and $\alpha = 2^\circ$ and n = 300 and $\alpha = 4^\circ$. Highest steel bit endurance resulted when the treatment was carried out at 450°C . The treatment has no effect on the red hardness of R18 steel. The effect of tempering temperature on bit hardness is shown in fig. 1 of the Enclosure. The microhardness H_v distribution on bit's profile after the shear strength test is shown in fig. 2 of the Enclosure. Orig. art. has: 2 figures, 1 table.

ASSOCIATION: Fiziko-mekhanicheskiy institut AN UkrSSR, Lvov (Physico-mechanical Institute, AN UkrSSR)

SUBMITTED: 06Mar65

ENCL: 02

7-12.0 p/min SUB CODE: MM, IE
Working at V. 12.0 p/min

NO REF SOV: 002

OTHER: 000

Card 2/4

L 1335-66

ACCESSION NR: AP5022403

ENCLOSURE: 01

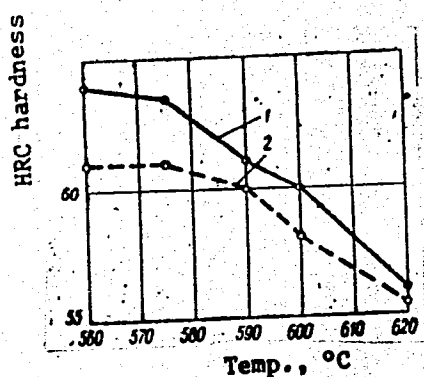


Fig. 1. 1--After treatment ($n = 500$ and $\alpha = 2^\circ$); and 2--After conventional gradual hardening.

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L 1335-66

ACCESSION NR: AP5022403

ENCLOSURE: 02

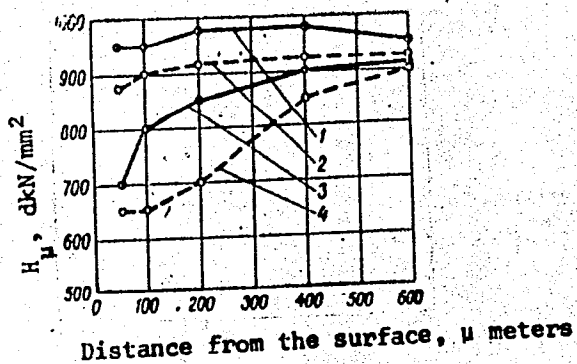


Fig. 2. 1--conventional thermal working at cutting rate $V=8.2$ m/min; 2--heat-vibration working at $V=8.2$ m/min; 3--conventional thermal working at cutting rate $V=12.0$ m/min; 4--heat-vibration working at $V=12.0$ m/min

Card 4/4

L 6983-66 EWP(s)/EWA(c)/EWT(m)/T/EWP(b)/EWA(d)/EWP(v)/EWP(t)/ JD

ACC NR: AP5022399

SOURCE CODE: UR/0369/65/000/004/0440/0448

AUTHOR: Romaniv, O. N. 44,55

ORG: Lvov Physicmechanical Institute (Fiziko-mekhanicheskiy institut AN UkrSSR, L'vov) 44,55

TITLE: About one case of mechanical anisotropy of a thermomechanically worked steel 44,55 16

SOURCE: Fiziko-khimicheskaya mekhanika materialov, no. 4, 1965, 440-448

TOPIC TAGS: carbon steel, metal hardening, mechanical fatigue 16

ABSTRACT: Mechanical anisotropy was studied on high-carbon (60S2) and U8A steel samples. The steel samples ($\phi 8-9$ mm, $l_{\text{working}} = 65$ mm) were thermomechanically worked at high temperatures; contact-heated to the austenization temperature, twisted, and tempered. The 60S2 steel samples were heated to 850°C and tempered to -100° to 300°C. The U8A steel samples were heated to 750°C and tempered to 100-175°C. The time lapse from the beginning of the mechanical deformation to the quenching varied within 1-2 sec. The degree of steel deformation was estimated on the basis of relative lattice dislocations, γ , using polished samples with $\phi = 5$ mm and $l_{\text{working}} =$

Card 1/2

L 6983-66

ACC NR: AP5022399

= 10 mm. The mechanical properties of steel samples were examined for both direct and inverse load conditions. In the case of 60S2 steel, direct loading up to $\gamma = 0.8$ resulted in increased plasticity and strength. Further increase of γ resulted in reduction of plasticity and constancy of the steel strength. In the case of U8A steel, direct loading up to $\gamma = 1.5$ resulted in an increased metal strength. It was found that both "plastification" and "embrittlement" of steel are due to a relief of shearing strains resulting from direct and inverse loading. The inverse loading causes submicrocrystalline interstitial cracks. The mechanical anisotropy as well as the increased strength are due to the strains present in the steel samples. The high-temperature thermomechanical working followed by torsional deformation leads to uniform distribution of the lattice dislocations and hardening of the high-carbon steels. The technique is useful for hardening of machining elements operating under unidirectional static loads equal to the loads employed during the steel working. Orig. art. has: 5 figures, 2 tables.

SUB CODE: MM/ SUBM DATE: 12Mar65/ ORIG REF: 004/ OTH REF: 008

Cord 2/2

ROMANIV, G.N. (Drogobych)

Redesigned SM-2 sewing machine for facing sleeve bottoms. Shvein.prom.
no.2:30-31 Mr-Ap '65. (MIRA 1816)

L 51533-65 EWT(d)/EWT(m)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(z)/
EWP(b)/EWP(l)/EWA(c) Pf-4 MJW/JD/HW
ACCESSION NR: AP5010788 UR/0021/65/000/004/0474/0477

AUTHOR: Vyval', I. P.; Romaniy, O. M. (Romaniv, O. N.); Karpenko, H. V. (Karpenko, G. V.) (Corresponding member AN UkrSSR)

TITLE: A new method of thermovibromechanical hardening of steel

SOURCE: AN UkrRSR. Dopovidi, no. 4, 1965, 474-477

TOPIC TAGS: steel hardening, vibration hardening, steel strength, hardness, plasticity

ABSTRACT: The authors investigated the mechanical behavior of steel after cyclic torsional deformation in the austenitic state and subsequent quenching. The investigations were made with medium-carbon structural steel 35Kh using samples of 9 mm diameter and 60 mm length. The test equipment was described elsewhere (Voprosy mashinovedeniya i prochnosti v mashinostroyeni, v. 9, 134, 1964). The vibration frequency was close to the natural frequency of the operator-sample system (20-30 cps). The strength, hardness, and plasticity of the steel were measured as a function of the amplitude of the deformation, the number of deformation cycles, and the steel tempering conditions. The hardness and the plasticity exhibited a maximum in

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L 51533-65

ACCESSION NR: AP5010788

the range 100--300 cps as a function of the amplitude of the produced elastic-
plastic deformation. ² It is concluded that the thermovibromechanical hardening of
steel can be used for certain machine parts and tools, especially those having the
shape of bodies of revolution. Orig. art. has: 2 figures and 1 table

ASSOCIATION: Fizyko-mekhanichnyy instytut (Physicomechanical Institute)

SUBMITTED: 04Jan64

ENCL: 00

SUB CODE: MM, AS

NR REF SOV: 004

OTHER: 000

Card 2/2

IZYUMOV, V.A.; ROMANIV, C.N.; TABINSKIY, K.P.

Thermomechanical working of the 60S2 spring steel. Vop. mekh. real.
tver. tela no.3:188-191 '64. (MIRA 17:11)

KARPENKO, G.V. [Karpenko, H.V.]; LEONOV, M.Ya.; ROMANIV, O.M.

"Theory of vibrations" by Y.M. Babakov. Reviewed by H.V. Karpenko.
Prikl.mekh. 8 no.3:340-341 '62. (MIRA 15:6)

(Vibration)

(Babakov, Y.M.)

VYVAL', I.P.; ROMANIV, O.N.

Effect of high temperature cyclic deformation and subsequent hardening
on the strength properties of steel. Vliian. rab. sred na svois. mat.
no.3:85-91 '64. (MIRA 17:10)

ROMANIV, O.N.; VYVAL', I.P.; KARPENKO, G.V.

Fatigue resistance of metals subjected to two kinds of bending
loading. Vop. mekh. real. tver. tela no.3:179-187 '64.
(MIRA 17:11)

KALINICHENKO, Kh.B.; ROMANIV, O.N.

Torsion hardening of low-carbon steel. Vliian. rab. sred na svoie. mat.
no.3:100-106 '64. (MIRA 17:10)

REPETSKIY, S.I.; ROMANIV, O.N.

Stabilization of loading in the process of fatigue testing. Nauch.zap.
VMA AN URSR.Ser.mashinoved. 10:113-128 '64. (MIRA 17:10)

VYVAL', I.P.; ROMANIV, O.N. [Romaniv, O.M.]; KARPENKO, G.V. [Karpenko, H.V.]

Effect of thermovibro-mechanical treatment on the mechanical properties of steel. Dop. AN URSR no.4:474-477 1965.

(MIRA 18:5)

1. Chlen-korrespondent AN UkrSSR (for Karpenko).

L 40903-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c) Pf-4 JD/HW
 ACCESSION NR: AP5009280 S/0369/65/001/001/0040/0048

AUTHOR: Romaniv, O.N.

TITLE: Some mechanical properties of steels subjected to high-strength treatment

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 1, no. 1, 1965, 40-48

TOPIC TAGS: steel mechanical property, steel strength, steel hardening, thermomechanical treatment, structural steel, tool steel, steel heat treatment, steel plasticity

ABSTRACT: The author analyzes and compares the mechanical properties of structural steels following various types of hardening treatments, particularly thermomechanical treatment (TMT). The analysis is based on data from numerous studies of TMT carried out in recent years, and also published data on the mechanical properties of various steels after different types of heat treatment. The steels considered are structural and tool steels, which are examined in three groups (A) Steels with an equilibrium structure formed on slow cooling from the austenitic state (annealing, normalizing). (B) Steels after thermal hardening by quenching followed by tempering or aging, these are steels with a martensite or bainite structure and a structure formed from the products of their decomposition during tempering. (3) Steels after thermomechanical hardening, i.e., steels with the structure of martensite and products of its tempering, formed from strained austenite.

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L 40903-65

ACCESSION NR: AP5009280

The mechanical properties of these three groups of steels are discussed in detail. Empirical relations are given which express the effect of thermal and thermomechanical hardening of steels treated to various degrees of plasticity. Orig. art. has: 3 figures, 1 table, and 9 formulas.

ASSOCIATION: FMI AN UkrSSR, Lvov

SUBMITTED: 05Oct64

ENCL: 00

SUB CODE: MM

NO REF SOV: 016

OTHER: 003

llc
Card 2/2

RECEIVED, 12/11/87, 1, 1, 1, 1.

...entirely the chapter in endurance properties of 20 knots under
the action of vertical forces. North Carolina AN 0850, Ser. machine used.
10/20/87, 1, 1, 1, 1. (MIRA 17:10)

L 23444-65 EWT(m)/T/EWP(t)/EWP(b) IJP(o) JD

ACCESSION NR: AT4049943

S/2723/64/000/003/0085/0091

AUTHOR: Vy*val', I.P.; Romaniv, O.N. (Candidate of technical sciences)

TITLE: The influence of high-temperature cyclic deformation and subsequent annealing on the strength of steel

SOURCE: AN UkrSSR. Fiziko-mekhanicheskyy institut. Vliyanie rabochikh sred na svoystva materialov, no. 3, 1964, 85-91

TOPIC TAGS: steel strength, steel hardness, hot plastic deformation, cyclic deformation, annealing, titanium alloy, austenite steel/steel 45

ABSTRACT: Recently, the simultaneous high-temperature hammer hardening of austenite with subsequent tempering and annealing has been widely applied for the hardening of steel and titanium alloys (see, e.g., J.C. Shyne, V.F. Zackay, D.J. Schmatz, The strength of martensite formed from cold-worked austenite, Transactions TASM, vol. 52, 1960). Vibrothermal hardening of steel 45 (0.46% C, 0.80% Mn, 0.28% Si, S < 0.05%, P < 0.04%) was carried out by applying torsion oscillations to cylindrical ($\phi = 20$ mm) samples. After heating 6-8 min at 840C, the samples were subjected to a periodic load and after the end of such (near-resonant) oscillations the samples were rapidly cooled by an oil jet. Finally, they were annealed in ovens over a period of 2 hours. The results

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L 23444-65

ACCESSION NR: AT4049943

are shown in Fig. 1 of the Enclosure. To check the depth to which the procedure was capable of creating a "valuable layer", the authors removed various thicknesses of the outer layers of the samples and examined the integral strength limit. The results are shown in Fig. 2 of the Enclosure. The authors assume that the cyclic deformation of austenite results in increased density of the defective dislocational structure which, during the rapid cooling of the samples, becomes fixed in the martensite form of the steel. Orig. art. has: 4 figures and 1 formula.

ASSOCIATION: none

SUBMITTED: 20Jun63

ENCL: 02

SUB CODE: MM

NO REF SOV: 005

OTHER: 003

Card 2/4

L 23444-65

ACCESSION NR: AT4049943

ENCLOSURE: 01

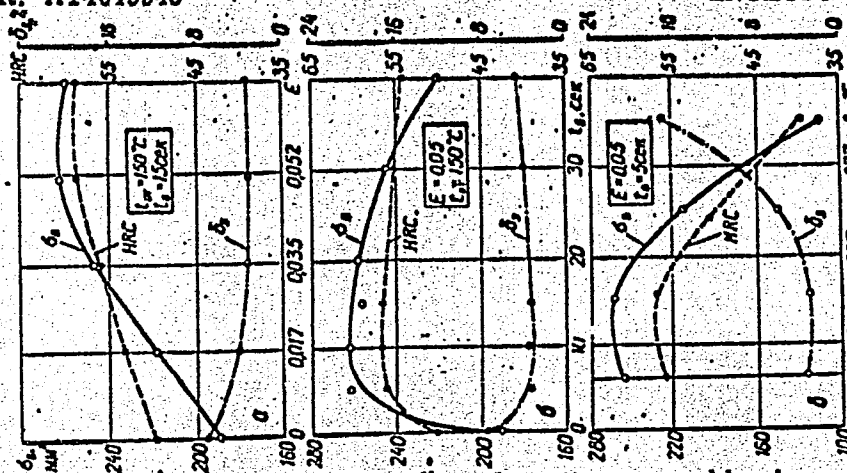


Fig. 1. The temporal resistance of disruption δ_B , elongation δ_3 , and hardness HRC as a function of the amplitude E of elastic-plastic deformation of the sample. [$t_b = 5-15$ sec corresponds to 300-700 cycles of the load]. (a) dan/mm^2 ; in the graph, $\text{Cek} =$ seconds.

Card 3/4

L 23444-65

ACCESSION NR: AT4049943

ENCLOSURE: 02

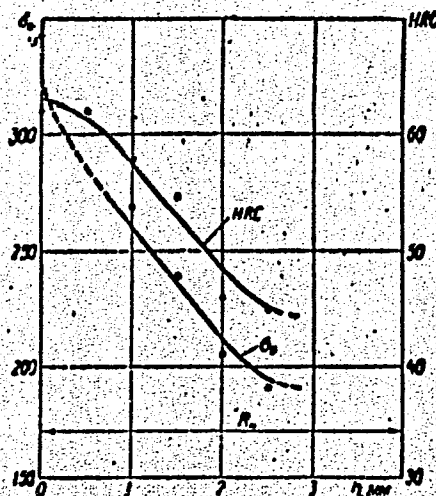


Fig. 2. Integral strength limit as function of the thickness of the removed layer. (a)

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ROMANIV, O.N.

Quasi-harmonic vibrations in systems with several degrees of
freedom. Nauch.zap. IMA AN URSR. Ser. mashinoved. 9:161-167 '62.
(MIRA 15:12)

(Vibration)

S/124/63/000/001/076/080
D234/D308

AUTHORS: Romaniv, O.N. and Ratyeh, I.V.

TITLE: A machine for testing in slow elastic-plastic cyclic torsion

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 1, 1963, 77, abstract LV600 (In collection: Mashiny i pribory dlya ispytaniy metallov. Kiev, AN SSSR, 1961, 32-34)

TEXT: The authors describe an installation for fatigue testing in torsion with small number of cycles, with recording of the stresses and deformations of the specimen by an oscillograph. Loading is performed by means of a crank mechanism, with constant amplitude of deformations (rigid loading).
[Abstracter's note: Complete translation]

Card 1/1

ROMANIV, O.N.; SHVETS, R.M.

Action of internal-friction forces in high-speed shafts. Nauch.zap.-
IMA AN URSR. Ser.mashinoved. 7 no.7:148-153 '61. (MIRA 15:1)
(Shafting)

S/179/60/000/006/014/036
E191/E135

26.2120

AUTHOR: Romaniv, O.N., (L'vov)

TITLE: Flexural Vibration of a Shaft With a Disc Having Unequal Equatorial Moments of Inertia

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1960, No. 6, pp. 98-104

TEXT: The gyroscopic effect of an overhung asymmetric heavy disc on the flexural vibrations and critical speeds of a shaft with unequal stiffnesses is considered, under the effect of static and dynamic unbalances of the disc and of its own weight. The disc is mounted at the end of a cantilever shaft and has, for example, the shape of a rectangular slab. The directions of the principal equatorial mass moments of inertia of the disc coincide with the directions of the principal axes of cross-sections of the shaft. Coefficients of asymmetry for the disc inertia and the shaft stiffness are defined. The static unbalance of the disc is defined by the eccentricity of its mass centre and the angle between the direction of eccentricity and one of the axes of

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S/179/60/000/006/014/036
E191/E135

**Flexural Vibration of a Shaft With a Disc Having Unequal
Equatorial Moments of Inertia**

symmetry. The dynamic unbalance is defined by the angles between the plane of the disc and the plane at right angles to the undeformed shaft axis. The equations of motion of the geometric centre of the disc, neglecting the friction forces, are formulated for the case of uniform rotation. Two further equations are derived from the law of change of the angular momentum about the centre of gravity of the disc. A new system of coordinates is introduced in order to eliminate periodically varying coefficients. The substitutions transfer the equations of motion into the moving system of coordinates. A shaft mounting equivalent to an encastré beam is assumed. The solutions are expressed as exponential functions which lead to a characteristic frequency equation. To facilitate solution, a substitution is used by which the square of the desired frequency and the square of the non-dimensional speed of shaft rotation are added to each other to form a new variable. Fig.2 shows the frequencies of the free vibrations of the shaft as a function of its rotating speed. The full lines

1c

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S/179/60/000/006/014/036

E191/E135

Flexural Vibration of a Shaft With a Disc Having Unequal Equatorial Moments of Inertia


apply to equal, the broken lines to unequal shaft stiffnesses. In the typical case of two-pole generators, the asymmetry coefficients of the disc inertia and the shaft stiffness are of the same order. This is assumed in the example. The regions of shaft rotation where instability occurs are shown. A shaft with a thin disc has a single zone of instability. A shaft with a long body has two zones. When the polar moment of inertia lies between the two equatorial moments, there is a single zone of instability and, in addition, a critical speed. Unequal shaft stiffnesses greatly increase the width of the instability zones. It is shown that, when the axis of the maximum equatorial moment of inertia of the disc coincides with the axis of the minimum shaft stiffness, the effects of instability due to disc and shaft asymmetries cancel each other. The particular solutions of the equations of motion are sought which correspond to static and dynamic unbalances. The geometric centre of the disc and the plane of the disc perform circular forced vibrations at the speed of shaft rotation but with Card 3/5

✓c

S/179/60/000/006/014/036
E191/E135

**Flexural Vibration of a Shaft With a Disc Having Unequal
Equatorial Moments of Inertia**

a phase shift which depends on the asymmetry coefficients. In the case of the long body, there are two pairs of critical speeds. In the case of the thin disc, there is one pair. In the case of the polar moment of inertia lying between the two equatorial moments, there is one pair and a single critical speed. The pairs of critical speeds correspond to the limit points of the angular velocity zones in which the motion is unstable. Fig.4 shows the critical speeds as a function of the asymmetry coefficients. The case of inverse precession is examined. F.M. Dimentberg (Ref.4) has shown that inverse precession can be excited by static or dynamic unbalances in the case of unequal elasticities of the bearing mountings. The excitation of inverse precession is shown to be possible also by asymmetry of the disc with a shaft of equal stiffness. The forced vibrations of the disc through its own weight are analysed. The asymmetry of the disc does not affect gravitational oscillations which depend only on unequal stiffnesses of the shaft.



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S/179/60/000/006/014/036
E191/E135

Flexural Vibration of a Shaft With a Disc Having Unequal
Equatorial Moments of Inertia

There are 4 figures and 5 references: 2 Soviet and 3 non-Soviet

ASSOCIATION: Institut mashinovedeniya i avtomatiki AN USSR
(Institute of Science of Machines and Automatics,
AS Ukr.SSR)

SUBMITTED: May 30, 1960

✓C

Card 5/5

ROMANIV, V.V.

Reactions of condensation of extractive phenols with formaldehyde.
Dokl. LPI 5 no. 1/2:96-99 '63. (MIRA 17:6)

ROMANIV, V.V.; BEREMAN, Ya.I.

Industrial experimental data on the production of combined-type synthetic tanning agents. Dokl. LPI 5 no. 1/2:11-14, 1963. (MIRA 17:6)

DESHALIT, G.I.; SOLDATENKO, I.S.; ROMANIY, Ye.V.

Obtaining coarser ammonium sulfate. Koks i khim. no.8:33-34 '58.
(MIRA 11:9)

1. Khar'kovskiy politekhnicheskii institut (for Deshalit). 2. Khar'-
kovskiy koksokhimicheskiy zavod (for Soldatenko, Romani).
(Ammonium sulfate) (Coke industry--By-products)

ROMANIYENKO, P.N.
ROMANIYENKO, P.N.

Contribution to the Theory of
Ejection and the Design
Calculations of Ejectors
(In French)

P. N. Romanienko

Izv. Akad. Nauk, Otd.
Tekh. Nauk
(6), 837-855
June, 1953
U. S. S. R.

62

Experimentally it has been found that the walls of the expansion chamber do not affect the free expansion of a turbulent jet in an ejector. However, Tollmien's solution for the equations of motion of such a jet give results in agreement with experiment only to a short distance (2-3 diameters) of the outlet section for the nozzle: at 6-7 diameters the deviation is 17-20%. The length of the free-expansion portion for the jet in the mixing chamber should be 15-25 x diameter of nozzle exit. The process of mixing of two conjoint flows having axial symmetry is analyzed mathematically, yielding equations from which design factors for ejectors can be calculated. The predictions of these equations are in good agreement with experiment. (Bibl. 8)
(O.N.E.R.A. Traduction Tech., (90), 23pp., April, 1954, France.)

SHARONOV, M.N.; SKLYAR, V.T.; ROMANIV, V.V.

Possibility of using Gorbki bentonites as catalysts for cracking
petroleum products. Bent. gliny Ukr. no.1:63-73 '55.
(MIRA 12:12)

L'vovskiy politekhnicheskii institut.
(Transcarpathia--Bentonite) (Catalysts) (Cracking process)

ACC NR: AR6027185

SOURCE CODE: UR/0271/66/000/005/B004/B004

AUTHOR: Romankevich, A. M.; Bychenok, N. N.

TITLE: Certain problems relating to the implementation of arithmetic operations on a computer operating with ten level elements

SOURCE: Ref. zh. Avtomat telemekh i vychisl tekhn, Abs. 5B27

REF SOURCE: Sb. Vopr. teorii elektron. tsifrovyykh matem. mashin. Vyp. 8. Kiyev, 1965, 65-75

TOPIC TAGS: computer technique, digital computer, computer design, decimal computer, arithmetic, computer language, multiplication

ABSTRACT: The advantages of the decimal counting system are cited. It is shown that the utilization of ten-level elements whose design is no more difficult than the design of binary elements may reduce the amount of necessary equipment. The formation of radix complement and nine's complement codes is however complicated when the ten-level elements are used. Therefore, it is expedient to use the normal number representation. In this case, the signs of the product and the quotient are determined by the sum of the sign bits of the two numbers. The arithmetic operation sign for the addition of two numbers is the modulo-10 sum of their sign bits and the sign bit of the algebraic operation. A thorough description is given of certain most specific methods of decimal multiplication: multiplication by repeated addition, multiplication

Card 1/2

UDC: 681.142.32.001

ACC NR: AR6027185

by subtraction, and multiplication by the multiplication matrix. Evaluations of the speed of performing the multiplication function are presented. [Translation of abstract] 5 illustrations and bibliography of 4 titles. G. Ya.

SUB CODE: 09

Card 2/2

L 00583-67

ACC NR: AR6029275

SOURCE CODE: UR/0044/66/000/006/V048/V048

AUTHOR: Romankevich, A. M.; Bychenok, N. N.

TITLE: Certain problems connected with the carrying out of arithmetic operations in machines working with ten positional elements

SOURCE: Ref. zh. Matematika, Abs. 6V326

REF SOURCE: Sb. Vopr. teorii elektron. tsifrovyykh matem. mashin. Vyp. 8, Kiyev, 1965, 65-75

TOPIC TAGS: arithmetic unit, computer coding, computer design, computer theory

ABSTRACT: The simplicity of realization of binary elements and the shortcoming peculiar to the binary systems of calculus quite often induced the designers to leave the decimal calculus and utilize binary-decimal codes although this leads to an increase in size of equipment by some 15—20%. The use of multipositional elements, which in realization complexity are comparable with the binary ones, permits not only to avoid these expenditures but also to reduce the equipment by, for instance, reducing the length of registers. During the utilization of ten-positional elements, a certain complexity of schematic realization of the formation of auxiliary and inverse codes is encountered. For the representation of numbers it is expedient to utilize direct codes; the code of the multiplication and fractional sign is fixed by

Card 1/2

UDC: 681.142.001

L 08588-67

ACC NR: AR6029275

the sum of the digits of the numbers signs. The sign of the arithmetic operation during the combining of two numbers is determined by the sum over the modulus 10 of the sign codes of the components and the sign code of the algebraic operation. Here it is comparatively simple to materialize the comparison of two numbers if, for instance, the phase pulse representation is utilized. The methods for the carrying out of the decimal composition and subtraction differ very little from the binary ones as far as new ideas and principles are concerned; however, as the result of a more economical representation of numbers their subsequent processing is accelerated. The paper describes in detail certain most specific methods of decimal multiplication. The multiplication by means of consecutive addition (a simplicity of realization at a not too high speed), the multiplication by means of subtraction, and the multiplication using the multiplication matrix. Estimates are given concerning the speed of multiplication for each of the three methods: during parallel summation $10nr$, $6nr$, and $5nr$; for consecutive summation $4.5n^2r$, $2.5n^2r$, and $n(n+1)r$ respectively, where n is the number of digits of the multiplier and r the duration of the cycle of addition and shift. Corresponding estimates for analogous binary multiplication ($9.9nr$ and $10.9n^2r$) permit the comparison of these two methods. [Translation of abstract] 5 illustrations and bibliography of 4 titles. G. Yakobson

SUB CODE: 09,12

Card 2/2

ROMANKEVICH, A.M.

Methods for the minimization of multivalued logic functions.
Kibernetika no. 4:38-42 J1-Ag '65. (MIRA 18:12)

1. Submitted Nov. 21, 1964.

ACC NR: AP7005660 SOURCE CODE: UR/0413/67/000/002/0177/0118
INVENTOR: Korneychuk, V.I.; Romankevich, A.M.; Sitnikov, L.S.; Utyakov, L.L.
ORG: none
TITLE: Logic element. Class 42, No. 190668 [announced by the Cybernetics Institute, AN UkrSSR (Institute kibernetiki AN UkrSSR)]
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 117-118
TOPIC TAGS: logic element, computer circuit, *SWITCHING CIRCUIT, FERRITE CORE memory*
ABSTRACT:

A logical element which operates on the basis of pulse-position representation of numbers is introduced (see Fig. 1). It consists of coincidence switching circuits and ferrite cores with read, write, restoration, and output windings. In order to process the characteristic function

Card 1/2

UDC: 681.142.07

ACC NR: AP7005660

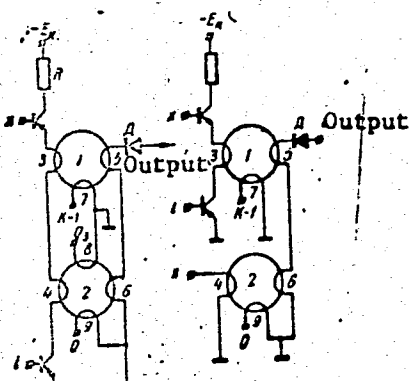


Fig. 1. Logic element

1, 2 - Ferrite cores; 3, 4 - input windings; 5, 6 - output windings; 7, 8 - read windings; 9 - restoration winding; x, i - input signals.

$$j_i(x) = \begin{cases} k-1 & \text{for } x=i \\ 0 & \text{for } x \neq i \end{cases}$$

where x and $i = 0, 1, 2 \dots k-1$, the input windings are connected in parallel and the output windings in series. Both types of winding are connected through a diode to the output terminals of the device. In order to process the characteristic function $j_i(x)$ at $i = 0$, the input winding is located on a single core. Orig. art. has: 1 figure. [09]

SUB CODE: 09/ SUBM DATE: 15Oct65/ ATD PRESS: 5116

Card 2/2

ROMANKEVICH, A.V.

19915. ON THE LIFETIME OF TWO TYPES OF π^0 -MESONS. 19 2

A.V. Romankevich.

Zh. eksper. teop. fiz., Vol. 33, No. 3, 615 (1957). In Russian.

According to the hypothesis of Fermi and Yang (Abstr. 2686/

1950) two types of π^0 -meson exist: $\pi^0(p + \bar{p})$ and $\pi^0(n + \bar{n})$, where

p = proton, n = neutron, \bar{p} = antiproton and \bar{n} = antineutron. An expression for the lifetimes of these mesons is given. S. Chomet

RML

PA

AUTHOR
TITLE

PERIODICAL

ABSTRACT

ROMANKEVICH A.V.
On the Life of the Two Types of π^0 -Meson.
(O vremeni zhizni dvukh vidov π^0 -Mezonov. - Russian.)
Zhurnal Eksperim. i Teoret. Fiziki 1957, Vol 32, Nr 3,
pp 615 - 615 (USSR).
Received: 6/1957

Reviewed: 7/1957

According to the hypothesis of E. FERMI and C. JANG, Phys. Rev., Vol 76, p. 1739 (1949) it is assumed that the pions are formed by nucleons and antinucleons which are in contact interaction with each other. (The potential well has a width of $\hbar/m\pi \sim 10^{-14}$ and a depth of $\sim 25 \cdot 10^9$ eV). According to this hypothesis there are two types of π^0 -mesons: $\pi^0(P + \bar{P})$ and $\pi^0(N + \bar{N})$; Denotations: P^- - proton, N^- - neutron, \bar{P} - antiproton, \bar{N} - antineutron. The present report gives the results of the computations of the life for both types of π^0 -meson. The computations were carried out by means of the general method of the invariant perturbation theory for a pseudoscalar meson with pseudoscalar coupling in the approximation $(\mu/M)^2 \ll 1$. Here μ denotes the mass of the meson, M - the mass of the nucleon. Further, the correctness of the development according to the powers of g^2/\hbar was assumed. The author assumed that

rein are
as ob-

$$c \sim \left(\frac{e^2}{\hbar^2} \right)^2 \left(\frac{\mu}{M} \right)^2 \frac{\mu e^2}{\hbar}$$

CARD 1/3

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R00144522000

CARD 2/3

method and by application of the same term corresponds to the meson. The other was estimated by means of the diagram. These diagrams are given here and evaluated. For the life the expression:
 $1/T \sim (N^4/192 \pi) (g^2/\hbar^2)^2 (e^2/\hbar^2)^2 (\mu/M)^4 (M/\mu)^3 m\pi^2/\hbar$

Romankevich, I. P.

✓ 1104. On the use of alkaline extracts from humic acids as deflocculants for slips. — I. P. ROMANKEVICH and R. B. ANGENITSKAYA (*Glass & Ceramics*, Moscow, 12, No. 11, 26, 1955). In Russian. A brief note. Humic acids enable the water content of slips to be considerably reduced without altering viscosity but eliminating thixotropy. The usefulness of humates was tried out on slips for taggars. Humic acids were obtained from lignite (by leaching with 10% NaOH). The moisture content of slips was 23-28% (depending on the clays used) compared to 32-34% with normal deflocculants.

Mads

pm mk

ВИАВ. 1949. 3. 11.

36742. Vliyaniye grammaticheskogo sostava molinov na ikh fiziko-mekhanicheskiye svoystva. Trudy Kiyevsk. Tekhnol. in-ta silikatov, T. II, 1949, s. 22 - 32.

36: Letopis' Zhurnal'nykh Statey, Vol 50, Moskva, 1949

ROMANKEVICH, I.P.; ANGENITSKAYA, R.B.

Use of alkali extracts from humic acid as peptising agents for
dress. Stek. i ker. 12 no. 11:28 N '55. (MLRA 9:1)

(Colloids)

ROMANKEVICH, I. P.

Angenitzkaya, R. B., and Romankevich, I. P. INCREAS-
ING PLASTICITY OF KAOLINS AND CLAYS. *Keram. i Steklo*,
11 [7] 27-32 (1935).—Various theories dealing with plas-
ticity are discussed and a series of studies made by the
authors is described. It was found that the increase of
the absorption capacity, through "exchange" reactions
with sodium under the effect of NaOH, is very limited,
and the plasticity of clay instead is therefore increased
slightly. The increase of the plastic properties of clay
material by means of the exchange of cations can be ob-
tained by a simultaneous increase in the absorption ca-
pacity by introducing a low concentration of water absorption
and high adsorbing properties.

OPEN
SERIALS INDEX
COMMON ELEMENTS

HEAVENLY LIST

ROMANKEVICH, A.V.

Concerning the lifetime of the two forms of the π^+ -meson. Zhur.
eksp. i teor. fiz. 32 no.3:615 Mr '57. (MLRA 10:11)

1. Moskovskiy gosudarstvennyy universitet.
(Mesons)

ROMANKEVICH, A. V.

Distr: 4E3d/4E4c

4366

CONCERNING THE LIFETIME OF THE TWO FORMS OF
THE π^0 MESON / A. V. Romankevich (Moscow State Univ.)
Soviet Phys. JETP 5, 509(1957) Oct.

Results are presented of calculations of the lifetime for
the two forms of π^0 meson, $\pi^0(P + \bar{P})$ and $\pi^0(N + \bar{N})$, where
P denotes proton, N neutron, \bar{P} antiproton, and \bar{N} antineu-
tron. (L.T.W.)

3
1-RML
2

CRP

11

ROMANKEVICH, E.A.; BEZRUKOV, P.L.; LISITSYN, A.P.; PETELIN, V.P.; SKORNYAKOVA, N. S.

Map of the Pacific Ocean Sediments.

Report submitted for the 13th General Assembly, IUGG. (Oceanography), Berkeley, California, 19-31 Aug 63.

ROMANOVICH, I.P., kand. tekhn. nauk [deceased]; GERASHIMOVA, N. . . , inzh.

Method of removing ferrous compounds from kaolins and clays.
Stek.l ker. 21 no.12:13-16 D '64. (MIRA 18:3)

1. Kiyevskiy politekhnicheskoy institut.

AUTHORS: Romankevich, I.P., Gerasimova, N.A.

72-58-6-12/19

TITLE: The Influence Exercised by the Addition of Pyrophyllite on the Quality of Capsule Masses (Vliyaniye dobavok pirofillita na kachestvo kapsel'nykh mass)

PERIODICAL: Steklo i Keramika, 1958, No. 6, pp. 40-41 (USSR)

ABSTRACT: Capsule masses with an addition of types of pyrophyllite found at Zbrankovo were tested. Pyrophyllite possesses a number of valuable technical properties: chemical insensibility to the action of strong acids and alkalies; great resistance to heat; resistance to rupture under pressure of up to 4650 kg/cm^2 (burning at 1350°); increase of volume by burning up to 1300° ; increased thermal conductivity and the capacity of going over into mullite and "kristobalite" (kristobalit) at 1150° . The pyrophyllite of the Zbrankovo occurrence exists in three varieties, the chemical composition of which is shown by table 1. Its resistance to heat varies between 1540 and 1630° . In order to investigate the influence exercised by the types of pyrophyllite upon the properties of the capsule masses experiments were carried out which are described in detail. The samples Nr 14 and 16 with finely ground

Card 1/2

The Influence Exercised by the Addition of
Pyrophyllite on the Quality of Capsule Masses

72-58-6-12/19

pyrophyllite were found to be the best. Their composition is given in table 2, and their properties in table 3. The masses of Nr 14 and Nr 16 were tested under conditions such as prevail in the works. The capsules formed from them were found to be much better in operation than those hitherto used. There are 3 tables.

ASSOCIATION: Kiyevskiy ordena Lenina Politekhnikheskiy Institut (Kiyev Polytechnic Institute of the Order of Lenin)

1. Minerals--Properties
2. Minerals--Test results

Card 2/2

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
<p>Increasing plasticity of kaolins and clays. R. Angenitzkaya and I. Romankevich. <i>Keram. i Staklo</i> 11, No. 7, 27-32(1935).—Various theories dealing with plasticity are discussed and studies made by the authors described. The increase of the capacity of absorbing through only "exchange" reactions with Na under the effect of NaOH is very limited, and the plasticity of clay material is, therefore, increased little. The increase of the plasticity of clay material by means of the exchange of cations can be obtained by a simultaneous increase of the capacity to absorb by introducing admixts. with a great absorption and high adhesion properties.</p> <p style="text-align: right;">M. V. Konechny</p>																			
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																			

ACC NR: AT7006294

(A)

SOURCE CODE: UR/0000/66/000/000/0068/0075

AUTHOR: Burmistrov, V. T.; Romankevich, M. Ya.

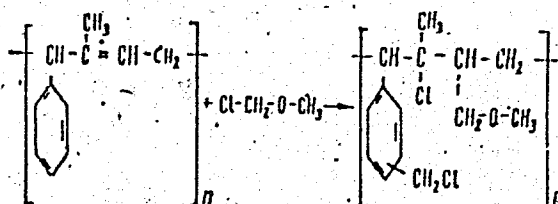
ORG: none

TITLE: High-molecular-weight derivatives of aryl dienes. Chloromethylation of polyphenylisoprene

SOURCE: AN UkrSSR. Sintez i fiziko-khimiya polimerov (Synthesis and physical chemistry of polymers). Kiev, Naukova dumka, 1966, 68-75

TOPIC TAGS: chloromethylation, polyphenylisoprene, *methylation, catalyst, isoprene*

ABSTRACT: The chloromethylation of polyphenylisoprene was studied by determining the influence of the ratio of the reactants, temperature, solvent, nature and amount of the catalyst, and duration of the reaction on the yield of the chloromethylated product. The chloromethylation process was found to take place as follows:



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ACC NR: AT7006294

i. e., in addition to the chloromethylation, there is a partial addition of chloromethyl ether to the carbon atoms of the aliphatic chain containing the double bond. The study established that the chloromethylation of linear polyphenylisoprene can be accomplished in 6-8 hr with 15 moles of monochloromethyl ether at 35-40°C in the presence of 0.4-0.6 mole of SnCl_4 , ZnCl_2 , or SnCl_2 with 70-80% conversion. The chloromethylation of graft (6% DVB) polyphenylisoprene can be carried out in 7-8 hr at the boiling point of monochloromethyl ether in the presence of 0.4-0.6 mole SnCl_4 and 15 moles of the ether with 70-80% conversion. Orig. art. has: 4 figures and 2 tables.

SUB CODE: 07/ SUBM DATE: none/ ORIG REF: 007/ OTH REF: 007

Card 2/2

L 40206-66 RTT(m)/RDP(j)/r CM/11/03
 ACC NR: AR6014588 SOURCE CODE: UR/0081/65/000/021/S087/S087

AUTHORS: Sinyavskiy, V. G.; Koshechkina, L. P.; Romankevich, M. Ya.

TITLE: Polystyreneaminoacetic acid as a complexing cation exchanger

SOURCE: Ref. zh. Khimiya, Abs. 21S541

REF SOURCE: Sb. Metody polucheniya khim. reaktivov i preparatov, Vyp. 10. M., 1964, 93-96

TOPIC TAGS: organic synthetic process, ion exchange resin, copolymer

ABSTRACT: A method for the synthesis of complexing amphoteric cation exchangers is developed. Granular copolymer of aminostyrene (20 g) with divinylbenzene was swelled by being kept for 2 hours in 500 ml of 1N HCl, then filtered and placed in a reactor fitted with a stirrer, reflux condenser, and dropping funnel. Monochloroacetic acid (80 g, excess of 5 times the required amount) and 600 ml of water were added. The mixture was heated on a steam bath, 20% aqueous NaOH solution was gradually added as the pH of the reaction mixture dropped, maintaining it within 10--12. After completion of the condensation process the mixture is heated for additional 2--3 hours at the above pH. Granules of the cation exchanger are washed with water to neutrality and dried in air, yielding 32.4 g. N. Shamis [Translation of abstract]

SUB CODE: 11,07

Card 1/1/1/1

ROMANKEVICH, I.P.; GERASIMOVA, N.A.

Replacement in faience materials of refractory plastic clays
by bentonite and kaolin. Bent. gliny Ukr. no.1:100-103 '55.
(MIRA 12:12)

1.Kiyevskiy politekhnicheskii institut.
(Bentonite) (Kaolin)

ROMANKEVICH, I.P.; GHERASIMOVA, N.A.

Effect of pyrophyllite additions on quality of the sagger mass.
Stek. i ker. 15 no. 6:40-41 Je '58. (MIRA 11:6)

1. Kiyevskiy ordena Lenina politekhnicheskii institut.
(Saggers) (Pyrophyllite)

ROMANKEVICH, I.P.; GERASIMOVA, N.A.

Casting properties of faience materials with bentonite additives.
Bent. gliny Ukr. no.2:169-177 '58. (MIRA 12:12)

1.Kiyevskiy politekhnicheskii institut.
(Ceramic materials) (Bentonite)

SINYAVSKIY, V.G. [Syniavs'kiy, V.H.]; TURBINA, A.I.; ROMANKEVICH, M.Ya.
[Romankevych, M.IA.]

Synthesis of n-aminostyrene. Dop. AN URSR no.12:1622-1624 '62.
(MIRA 16:2)

1. Institut khimii polimerov i monomerov AN UkrSSR. Predstavleno
akademikom AN UkrSSR A.I. Kiprianovym.
(Styrene)

TURBINA, A.I.; SINAYSKII, V.G.; ROMANOVICH, M.A.

Synthesis of o-hydroxyphenyl vinyl ketone. Ukr. Khim. zhur. 31 no.1:
85-88, 1985. (MIRA 18:5)

1. Institut vysokomolekul'arnykh soyedineniy AN UkrSSR.

KORNEV, K.A., glav. red.; SHEVLYAKOV, A.S., red.; CHERVYATSOVA, L.L., red.; SMETANKINA, N.P., red.; YEGOROV, Yu.P., red.; ROMANKEVICH, M.Ya., red.; KUZNETSOVA, V.P., red.; PAZENKO, Z.N., red.; KACHAN, A.A., red.; VOYTSEKHOVSKIY, R.V., red.; GREKOV, A.P., red.; DUMANSKIY, I.A., red.; AVDAKOVA, I.L., red.; VYSOTSKIY, Z.Z., red.; GUMENYUK, V.S., red.; MEL'NIK, A.F., red.

[Synthesis and physical chemistry of polymers; articles on the results of scientific research] Sintez i fiziko-khimiia polimerov; sbornik statei po rezul'tatam nauchno-issledovatel'skikh rabot. Kiev, Naukova dumka, 1964. 171 p. (MIRA 17:11)

1. Akademiya nauk URSS, Kiev. Institut khimii vysokomolekulyarnykh soyedineniy. 2. Institut fizicheskoy khimii im. L.V. Pisarzhevskogo AN USSR (for Vysotskiy). 3. Institut khimii vysokomolekulyarnykh soyedineniy AN USSR (for Romankevich, Chervyatsova, Voytsekhovskiy).

SINYAVSKIY, Y.I. [Sinyav'skiy, Y.I.]; TURBINA, A.I.; ROMANKEVICH, M.IA.
[Romankevych, M.IA.]

Diazotization of granular copolymers of p-aminostyrene with
divinylbenzene and their nitrogen coupling with some phenol
derivatives. Dep. AN USSR no.5:613-615 '63. (MIRA 17:9)

1. Institut khimii polimerov i monomerov AN UkrSSR. Predstavleno
akademikom AN UkrSSR A.I.Kiprianovym.

SINYAVSKIY, V.G.; TURBINA, A.I.; ROMANKEVICH, M.Ya.

Polymerization and copolymerization of p-aminostyrene.

Plast. massy no.8:63-65 '63.

(MIRA 16:8)

(Styrene) (Polymerization)

ROMANKEVICH, M.Ya.; SINYAVSKIY, V.G.; TSYGANKOVA, M.P.

Synthesis and study of selective polyelectrolytes.
Report No.1. Ukr.khim.zhur. 28 no.9:1096-1099 1962.
(MIRA 15:12)
1. Institut khimii polimerov i monomerov AN UkrSSR.
(Ion exchange resins)

ROMANKEVICH, M.Ya.

Diffusion processes in cationite and the kinetics of ion exchange.
Part 1: Synthesis of the sulfonylphenol cataionite and preparation
of homogeneous membranes from it. Ukr. khim. zhur. 24 no.3:325-327
'58. (MIRA 11:9)

1. Institut organicheskoy khimii AN USSR.
(Phenol) (Membranes (Chemistry)) (Base-exchanging compounds)

ROMANKEVICH, M. YA; GIRKO, I. P.

USSR (600)

Organolites

Determination of capacity of organolites. I. Catonites. Ukr. khim. zhur. 15
no 3, 1949.

Monthly List of Russian Accessions, Library of Congress, September 1952. Unclassified

GOLOVIN, P.V.; ROMANKEVICH, M.Ya.; GIRKO, I.P.

Purification of saturated juice of Jerusalem artichoke by means of organic ion exchangers. II. Anionites. Ukrain. Khim. Zhur. 15, 281-4 '49.
(CA 47 no.22:12689 '53) (MLRA 5:6)

ROMANKEVICH, M.Ya.; SHAPOSHNIKOVA, Z.B.

Diffusion processes in cationite and the kinetics of ion exchange.
Part 2: Effect of electrolyte concentration and nature of the cation
on changes in cationite volume. Ukr. khim. zhur. 24 no.3:328-331 '58.
(MIRA 11:9)

1. Institut organicheskoy khimii AN USSR.
(Cations) (Base-exchanging compounds)

ROMANKEVICH, M.Ya.; SHAPOSHNIKOVA, Z.B.

Diffusion processes in cationite and the kinetics of ion exchange.

Part 3: Diffusion processes during ion exchange. Ukr. khim. zhur.
(MIRA 11:9)

24 no.3:332-335 '58.

1. Institut organicheskoy khimii AN USSR.
(Ion exchange)

ROMANKEVICH, M.Ya.; SHAPOSHNIKOVA, Z.B.

Diffusion processes in cationite and the kinetics of ionic exchange.

Part 4: Redistribution of mono and divalent ions in the internal layers of cationite. Ukr. khim. zhur. 24 no.4:440-442 '58.

(MIRA 11:10)

1. Institut organicheskoy khimii AN USSR.

(Ion exchange)

(Chemical reaction, Rate of)

ROMANKEVICH, M.Ya.

Diffusion processes in cationite and the kinetics of ion exchange.
Part 5: Application of ionites suspensions for purification and
extraction of substances from solutions. Ukr. khim. zhur. 24
no.4:541-543 '58. (MIRA 11:10)

1. Institut organicheskoy khimii AN USSR.
(Ion exchange) (Extraction (Chemistry))

S/073/62/028/009/007/011
A057/A126

AUTHORS: Romankevich, M. Ya., Sinyavskiy, V. G., Tsygankova, M. P.

TITLE: Synthesis and investigation of selective polyelectrolytes.
Communication I

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, v. 28, no. 9, 1962, 1096 - 1099

TEXT: Selective, polymer ion exchange resins were prepared with the complex forming groups not participating in the formation of the polymer. Thus were obtained nitropolystyrene, aminopolystyrene and products of its azoconjunction with p-cresol, p-nitrophenol, β -naphthol, resorcin, anilide of acetoacetic acid, benzazoresorcin, pyrogallol, 8-oxiquinoline, anilinediacetic acid, 1-phenyl-3-methyl-5-pyrozalon, salicylic, gallic, anthranilic and chromotropic acid, 2-naphthol-6,8-disulphuric- and 2-naphthol-3,6-disulphuric acid. Some of the prepared ion-exchange resins showed selective properties for several cations as for instance: Fe, Ni, Co, Al, Mg, Zn, Cr. More detailed investigations are carried out at the present time. The capacity of the ion exchange resins was determined after regeneration with 10 - 20% hydrochloric acid solution. The

Card 1/2

Synthesis and investigation of...

S/073/62/028/009/007/011
A057/A126

regeneration occurs almost quantitatively. Structural formulas of the obtained resins are presented, and the preparation technique is described. The prepared ion exchange resins are insoluble in acids, alkali solutions, and organic solvents. The products with chromotropic and anthranilic acid showed a very strong swelling in water, while those with β -naphthol, anilide of acetoacetic acid and p-cresol showed very low swelling in water. Therefore these two groups were not investigated. There is 1 table.

ASSOCIATION: Institut khimii polimerov i monomerov AN USSR (Institute of Polymer and Monomer Chemistry AS UkrSSR) ✓

SUBMITTED: August 12, 1961

Card 2/2

GOLOVIN, P. V., ROMANKEVICH, M. YA.
GIRKO, I. P.

USSR (600)

Helianthus Tuberosus

Purification of the carbonation juice of Helianthus tuberosus with organolites.
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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

B-I-9

Increasing plasticity of anoxides and oxys.
R. A. ALLEN, JR. and R. A. ALLEN, JR. (Kern.
1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566,

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S/139/61/000/001/012/018
EO32/E514

AUTHORS: Romankevich, V. N. and Sidyakin, V. G.

TITLE: The Electrical Properties of Selenium Specimens with Chlorine Impurity, as Functions of Storage Time

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1961, No.1, pp.130-133

TEXT: A study of the effect of chlorine on the electrical properties of selenium is reported. The selenium specimens with a chlorine impurity were prepared by introducing selenium tetrachloride into amorphous selenium in powder form. The mixture was then compressed and subjected to heat treatment in sealed-off containers at $t = 180^{\circ}\text{C}$ with subsequent cooling to room temperature. The selenium tetrachloride was obtained as follows. The selenium (in powder form) was placed in a tube through which chlorine was passed. The selenium was dried by concentrated sulphuric acid prior to the chlorination. On completion of the chlorination process SeCl_4 was transferred by distillation into a neighbouring part of the tube, after which the surplus chlorine was removed by blowing dry air over the specimen. The selenium tetrachloride was

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S/139/61/000/001/012/018⁸⁹⁷⁰⁴
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The Electrical Properties of

stored in a sealed-off ampoule since it easily decomposes in humid air. The chlorine impurity in the final specimens was between 0.01 and 4% by weight. The specimens were then left for 50 min and their electrical properties were re-measured. The specimens were stored in air in light-tight containers. The results obtained are summarised in Tables 1-4.

Table 1

% of Cl in Se	0	0.1	0.25	0.5	1	3
$\sigma \cdot 10^{-6}$ initially	3.6	446	594	473	621	1510
in $\Omega \text{ cm}^{-1}$ at 20°C after ageing	-	36.5	33.3	28.7	139	141

Table 2

% of Cl in Se	0.01	0.01	0.25	0.5	1	2	3	4
α in mV/deg initially at 46.5°C	0.71	0.91	0.58	0.66	0.59	0.85	0.79	0.72
after ageing	0.59	0.79	0.78	-	1.06	-	1.01	-

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Table 3

		$\rho, \frac{\text{cm}^3}{\text{cm}}$				Таблица 3
% Cl	t, C°	42°	51°	60°	70°	
	0.001	$7.94 \cdot 10^{10}$	$1.07 \cdot 10^{10}$	$1.15 \cdot 10^{10}$	$3.24 \cdot 10^{10}$	
	0.01	$4.57 \cdot 10^{10}$	$4.90 \cdot 10^{10}$	$3.71 \cdot 10^{10}$	$8.13 \cdot 10^{10}$	
	0.1	$3.55 \cdot 10^{15}$	$3.89 \cdot 10^{15}$	$2.29 \cdot 10^{15}$	$3.31 \cdot 10^{15}$	
	0.25	$2.14 \cdot 10^{17}$	$2.19 \cdot 10^{17}$	$2.24 \cdot 10^{17}$	$3.02 \cdot 10^{17}$	
	0.5	$7.24 \cdot 10^{16}$	$8.91 \cdot 10^{16}$	$9.33 \cdot 10^{16}$	$1.55 \cdot 10^{17}$	
	1	$1.66 \cdot 10^{17}$	$2.24 \cdot 10^{17}$	$2.75 \cdot 10^{16}$	$4.68 \cdot 10^{17}$	
	2	$9.33 \cdot 10^{15}$	$9.77 \cdot 10^{15}$	$8.91 \cdot 10^{15}$	$1.44 \cdot 10^{16}$	
	3	$2.04 \cdot 10^{16}$	$2.09 \cdot 10^{16}$	$2.75 \cdot 10^{16}$	$6.46 \cdot 10^{16}$	
	4	$3.02 \cdot 10^{16}$	$8.71 \cdot 10^{15}$	$7.41 \cdot 10^{15}$	$1.48 \cdot 10^{16}$	

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The Electrical Properties of

S/139/61/000/001/012/018
EO32/E514

μ см²/в-сек
cm²/V-sec

Таблица 4 Table 4

%Cl \ t, C°	42°	51°	60°	70°
0,001	15,8·10 ⁻²	10,8·10 ⁻²	89,4·10 ⁻²	26,5·10 ⁻²
0,01	65,0·10 ⁻²	59,5·10 ⁻²	72,6·10 ⁻²	30,1·10 ⁻²
0,1	0,34·10 ⁻²	0,39·10 ⁻²	0,72·10 ⁻²	0,51·10 ⁻²
0,25	2,26·10 ⁻²	2,33·10 ⁻²	2,42·10 ⁻²	1,98·10 ⁻²
0,5	2,80·10 ⁻²	2,29·10 ⁻²	3,12·10 ⁻²	2,22·10 ⁻²
1	4,25·10 ⁻²	3,45·10 ⁻²	3,09·10 ⁻²	1,94·10 ⁻²
2	0,14·10 ⁻²	0,17·10 ⁻²	0,24·10 ⁻²	0,17·10 ⁻²
3	0,37·10 ⁻²	0,32·10 ⁻²	0,22·10 ⁻²	0,20·10 ⁻²
4	0,19·10 ⁻²	0,75·10 ⁻²	0,01·10 ⁻²	0,56·10 ⁻²

In these tables n is the carrier concentration and μ is the mobility. There are 4 figures, 4 tables and 6 references: 4 Soviet, 2 non-Soviet.

ASSOCIATION: Kiyevskiy politekhnicheskii institut (Kiev Polytechnical Institute)

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S/139/60/000/03/033/045

AUTHORS: Romankevich, V.N. and Sidyakin, V.G. ^{E140/E335} 21

TITLE: Variability of Electrical Parameters of Selenium Samples
with Bromine Impurity in Dependence on Storage Time

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,
1960, No 3, pp 180 - 184 (USSR)

ABSTRACT: A large number of samples with various bromine contents
were stored for 50 months in darkness at room temperature
with free air circulation. It was found that the bromine
content was markedly reduced but not to zero, so that the
electrical properties changed over very wide ranges,
depending on the initial concentration.
There are 5 figures, 3 tables and 5 references, 1 of
which is German and 4 Are Soviet.

ASSOCIATION: Kiyevskiy politekhnicheskii institut
(Kiyev Polytechnical Institute)

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ROMANKEVICH, V.N.; SIDYAKIN, V.G.

Electrical properties of selenium tetrabromide. Izv. vys. ucheb.
zav.; fiz. no.4:19-20 '59. (MIRA 13:3)

1.Kiyevskiy politekhnicheskoy institut.
(Selenium bromide--Electric properties)